January 18, 2005

Wendy Hulsbosch
Technical Contact
Proviron Fine Chemicals
Stationsstraat 123
8400 Oostende
Belgium

Dear Ms. Hulsbosch:

The Office of Pollution Prevention and Toxics is transmitting EPA's comments on the robust summaries and test plan for *N*-*n*-Butylbenzenesulphonamide, posted on the ChemRTK HPV Challenge Program Web site on February 26, 2004. I commend Proviron Fine Chemicals for its commitment to the HPV Challenge Program.

EPA reviews test plans and robust summaries to determine whether the reported data and test plans will provide the data necessary to adequately characterize each SIDS endpoint. On its Challenge Web site, EPA has provided guidance for determining the adequacy of data and preparing test plans used to prioritize chemicals for further work.

EPA will post this letter and the enclosed comments on the HPV Challenge Web site within the next few days. As noted in the comments, we ask that Proviron advise the Agency, within 60 days of this posting on the Web site, of any modifications to its submission. Please send any electronic revisions or comments to the following e-mail addresses: oppt.ncic@epa.gov and chem.rtk@epa.gov.

If you have any questions about this response, please contact Donald Rodier, Acting Chief of the HPV Chemicals Branch, at 202-564-7633. Submit questions about the HPV Challenge Program through the "Contact Us" link on the HPV Challenge Program Web site pages or through the TSCA Assistance Information Service (TSCA Hotline) at (202) 554-1404. The TSCA Hotline can also be reached by e-mail at tsca-hotline@epa.gov.

I thank you for your submission and look forward to your continued participation in the HPV Challenge Program.

Sincerely,

Oscar Hernandez, Director
Risk Assessment Division

Enclosure

cc: W. Penberthy
M. E. Weber

EPA Comments on Chemical RTK HPV Challenge Submission:
***N-n*-Butylbenzenesulphonamide**

Summary of EPA Comments

The sponsor, Proviron Fine Chemicals, submitted a test plan and robust summaries to EPA for *N-n*-butylbenzenesulphonamide (CAS number 3622-84-2) dated December 29, 2003. EPA posted the submission on the ChemRTK HPV Challenge Web site on February 26, 2004.

EPA has reviewed this submission and has reached the following conclusions:

1. Physicochemical Properties. The submitter needs to check the vapor pressure value provided.

2. Environmental Fate. The data provided by the submitter for these endpoints are adequate for the purposes of the HPV Challenge Program. The submitter needs to incorporate its photodegradation, stability in water, and fugacity data into the robust summaries.

3. Health Effects. Data are adequate for acute and repeated dose toxicity and gene mutations pending the submission of revised robust summaries. EPA agrees that studies are needed to address developmental and reproductive endpoints and the genetic endpoint for chromosomal aberrations.

4. Ecological Effects. EPA reserves judgement on the adequacy of the aquatic invertebrate and aquatic plant endpoints pending the submission of revised robust summaries. EPA disagrees with the submitter that adequate data is available for the fish endpoint. The sponsor needs to provide data on *N-n*-butylbenzenesulphonamide or an adequate analog, or perform testing following OECD TG 203.

EPA requests that the submitter advise the Agency within 60 days of any modifications to its submission.

EPA Comments on the *N-n*-Butylbenzenesulphonamide Challenge Submission

Test Plan

Physicochemical Properties (melting point, boiling point, vapor pressure, partition coefficient, and water solubility)

The data provided by the submitter for melting point, boiling point, partition coefficient, and water solubility are adequate for the purposes of the HPV Challenge Program.

Vapor pressure. In its robust summary the submitter provided a vapor pressure value of 0.56 hPa (0.42 mm Hg) at 184 °C. Vapor pressures calculated or estimated by EPA varied by several orders of magnitude from this value, ranging from 5.7×10^{-7} mm Hg to 9.25×10^{-4} mm Hg (25 °C). The submitter needs to confirm the value, and clearly indicate if it is estimated or measured (if measured, the method used should be stated). If this determination is not possible, or if the submitter concludes that this value is estimated, then the submitter needs to provide measured vapor pressure data for this chemical following OECD Guideline 104. Estimated values above 7.5×10^{-8} mm Hg (1×10^{-5} Pa) are not adequate for the purposes of the HPV Challenge Program.

Environmental Fate (photodegradation, stability in water, biodegradation, fugacity)

The data provided by the submitter for these endpoints are adequate for the purposes of the HPV Challenge Program.

Health Effects (acute toxicity, repeated-dose toxicity, genetic toxicity, and reproductive/developmental toxicity)

Data appear adequate for the acute toxicity, repeated-dose and gene mutation endpoints, but more details are needed. EPA agrees with the submitter's plan to conduct a chromosome aberration test (OECD TG 473) and a reproductive/ developmental toxicity screening test (OECD TG 421).

Ecological Effects (fish, invertebrates and algae)

Invertebrates and algae. EPA reserves judgement on the adequacy of the aquatic invertebrate and aquatic plant endpoints pending the submission of revised robust summaries. If the missing information cannot be provided, then additional testing is needed following the OECD TG 201 and 202 guidelines.

Fish. EPA disagrees with the submitter's contention that adequate data are available. No data were provided and an estimation is not sufficient for the purposes of the HPV Challenge Program. Measured data are needed for *N-n*-butylbenzenesulphonamide or a suitable analog.

Specific Comments on the Robust Summaries

Environmental Fate

The submitter needs to incorporate the photodegradation, stability in water, and fugacity data into the robust summaries. In the fugacity robust summary, the submitter needs to incorporate the input values used in the model.

Health Effects

Repeated-Dose Toxicity. Information missing from the robust summary include the vehicle used, number of test animals, statistical methods used, results of statistical analysis, organs/tissues weighed and examined histologically, hematology and clinical chemistry parameters that were studied, and control response data. Information on when the high dose animals (1000 mg/kg) died during the course of the 28-day study is needed.

Genetic Toxicity. Information missing from the robust summary include incubation conditions (e.g., temperature), cell density during treatment, number of plates per concentration, use of positive and negative controls, and statistical methods used.

Ecological Effects

Invertebrates. Information missing from the robust summary of the acute study in *Daphnia magna* included age and number of daphnids used, concentrations tested, whether analytical monitoring was performed, control use/response, mortality/effects (percentage immobilization) seen at each concentration, water chemistry measurements (e.g., pH, temperature, dissolved oxygen concentration), statistical methods used, and results of statistical analyses.

Algae. Information missing from the robust summary included water quality measurements (e.g., temperature, pH, dissolved oxygen concentration), light intensity and quality, control use/response, concentrations tested, whether analytical monitoring was performed, details about cell density/inhibition of cell growth at all concentrations tested, statistical methods used, and results of statistical analyses.

Followup Activity

EPA requests that the submitter advise the Agency within 60 days of any modifications to its submission.